

Sociocultural Factors And Achievement Among Hispanic Children With Exceptionalities

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Introduction

A serious consequence of biased assessment practices is overrepresentation of minority children in special education classes (Baca & Cervantes, 1989). Part of the problem is that adequate assessment instruments have not yet been developed which can fairly assess children of different linguistic or cultural groups (Baca & Bransford, 1981; Bernal, 1979). A more serious problem,

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however, is the insufficient numbers of professional personnel who are adequately trained or experienced to develop, administer, or interpret assessment instruments or procedures (Miller, 1984). Additionally, even for those children who are legitimately identified as requiring special education services, appropriate programs either do not exist or are inadequate (Wilkinson, Willig, & Ortiz, 1986). Through a series of litigation procedures, methodology of norm-referenced testing and, in particular, the conclusions and consequences resulting from the analysis of test results have been disputed. This movement has generated efforts to develop valid psychoeducational assessment techniques that take into account cultural and linguistic aspects. Thus, the educational field is witnessing a surge of interest in the sociocultural factors affecting the academic achievement of minority children. Research in this area points out that social and environmental factors play a crucial role in determining the extent to which educational potentialities are realized (Capper, 1990). For example, level of parental education, parental occupation, socioeconomic status, family size, and family structure have been identified as important in determining the educational achievement of many minority group children (Rodriguez, 1982).

It can be demonstrated empirically that a large amount of variance exists in school achievement among culturally and linguistically different children. However, it is not known whether and to what extent sociocultural variables explain this observable difference. The purpose of this study was to determine whether sociocultural factors contributed significantly to achievement test scores since it has been shown that such factors contribute to intelligence scores.

Method

Subjects - The study was conducted in an urban area of the Southwestern United States. The sample group was comprised of 50 elementary age Mexican American children identified as learning disabled who were assigned part-time to a Resource Room. Parents of the 50 children were also subjects in the study. Subjects were drawn from nine schools which were selected because administrative records indicated a broad range of socioeconomic statuses among a predominantly Mexican American school population. The sample included 32 boys and 18 girls whose chronological ages ranged from 81 months to 144 months with a Mean CA of 111.50 months ($SD = 14.35$).

Procedure - Graduate students enrolled in an educational testing class at the local university and I administered the PIAT to the 50 children of the sample group. Student WRAT - R scores were obtained by the Resource Room teacher

of each participating school. I administered the Sociocultural Scales of the SOMPA to the parents of the 50 children. Administration of the scales was conducted in either English or Spanish depending on the preference of the parents. Individual homes of the parents were selected as the most desirable location to administer the sociocultural scales.

Results - The purpose of this study was to investigate the amount of variance in the scores on the *Peabody Individual Achievement Test* (PIAT) and the *Wide Range Achievement Test - Revised* (WRAT -R) which could be accounted for by the Sociocultural Scale—Family Size, Family Structure, Socioeconomic Status, and Urban Acculturation—of the *System of Multicultural Pluralistic Assessment* (SOMPA).

A summary of the descriptive statistics of the study variables is presented in Table 1. PIAT and WRAT-R mean raw scores, standard deviations, grade placements, and percentile ranks (in relation to Mean CA) are also shown in Table 1. The children's scores on the PIAT and WRAT-R individual subtests show that they are functioning at the second grade level. In relation to the Mean CA (111.50 months; 9 years 3 months), all 50 children scored below the twenty-fifth percentile on the individual PIAT subtests. They met the tenth percentile requirement for learning disability in spelling on the PIAT and reading and spelling on the WRAT-R.

A multiple regression procedure was performed to show the amount of variance in the total PIAT and total WRAT-R accounted for by the Sociocultural Scales - Family Size, Family Structure, Urban Acculturation, and Socioeconomic Status. The ANOVA showed that the R^2 statistic was not significant in the PIAT total score. An ANOVA showed the R^2 statistic was also not significant in the total WRAT-R score.

Person product-moment coefficients of correlation revealed positive significant correlations between Urban Acculturation and Reading Recognition, Reading Comprehension, and Spelling subtests of the PIAT. Significant correlations were also found among Socioeconomic Status and Reading Recognition, Reading Comprehension, and Spelling subtests of the PIAT. Significant correlations were also found between Socioeconomic Status and Reading Recognition and Spelling subtests of the PIAT. Person product-moment coefficients of correlations showed a significant positive correlation between Family Structure and the Arithmetic subtests of the WRAT-R. Significant correlations were found between Urban Acculturation and Reading and Spelling of the WRAT-R.

Table 1. Summary of Descriptive Statistics

Variables	N	Mean Raw Score	Standard Deviation	Grade Equiv- alent	(X CA= 111.50) Percentile Ranks
PIAT					
Math	50	28.82	7.30	2.7	17
Reading Recognition	50	26.76	5.54	2.6	15
Reading Comprehension	50	26.82	8.07	2.8	18
Spelling	50	26.12	5.86	2.4	10
General Info	50	22.76	10.55	3.4	33
Total	50	130.46	29.84	2.6	13
WRAT-R					
Arithmetic	50	25.42	5.00	2.6	18
Reading	50	40.64	12.53	2.1	10
Spelling	50	27.16	5.54	2.0	9

In summary, analysis of individual performance shows that the subjects tended to do poorly on both PIAT and WRAT-R subtests. Significant relationships existed among Reading Recognition, Reading Comprehension, Spelling and Total Score with individual subtests of the PIAT and Urban Acculturation being the most significantly related. When the WRAT-R subtests were considered by multiple regression, Sociocultural Scales did not account for significant variance. However, Family Structure was significantly related to Arithmetic scores. Urban Acculturation was also significantly related to Reading and Spelling. The Sociocultural Scales are related to the Reading and Spelling subtests of both PIAT and WRAT-R and Arithmetic of the WRAT-R.

Discussion

The purpose of this study was to determine whether sociocultural factors contributed significantly to achievement test scores as Mercer and Lewis (1977) had shown such factors contribute to IQ Scores. A survey of the literature in the field of Special Education, and particularly the assessment of minority group

children, revealed that during the past decade some research studies have been directed toward the academic achievement of lower socioeconomic and minority group children (Fradd & Weismantel, 1989). These research efforts have shown that discriminatory practices exist in the educational assessment of minority group children using standardized psychological measures. However, data directed at the problem of demonstrating the effects of discriminatory psychoeducational assessment against minority group children are, for the most part, meager.

It has already been emphasized that the results from standardized tests should be suspect because of their uncertain relationship with school tasks and their failure to provide information that aids instructional decision making (Cummins, 1984). Some authors have stated that poor performance on standardized instruments is due to factors such as faulty educational planning, inappropriate curricula, and unsystematic teaching methods, and not to cognitive inferiority (Jones, 1988).

Other research suggests that poor academic performance of many minority group children must be attributed to other factors in the environment and not entirely to standardized academic assessment measures (Ortiz, Garcia, Holtzman, Polyzoi, Snell, Wilkinson, & Willig, 1985). Clearly, factors having to do with the depth of language comprehension, parental attitudes toward school, and teacher awareness of the educational problems some minority groups have, must also be considered as possible factors causing academic deficiencies (Willig & Greenberg, 1985).

Urban Acculturation was significantly related to some individual subtests of the PIAT and WRAT-R. This indicates that, although the Sociocultural Scales did not contribute significantly to the variance of the achievement tests, Urban Acculturation was an important correlate of academic achievement. Of the four factors that comprise the Urban Acculturation scale, assimilation appeared to be the most important. It consists of four items: the highest grade completed by the head of household, the highest grade completed by mother or mother substitute, whether mother or mother-substitute was reared in the South, and an interview in the English language.

Data from this study also showed that Socioeconomic Status was significantly related to individual subtests of the PIAT and WRAT-R. Socioeconomic Status consists of two factors: occupation of head of household and who provides most of the family income. It has been suggested that some lower socioeconomic status environments lack the financial resources to provide those experiences related to academic growth and success. Consequently, the educational advancement of the children is often restricted (Prieto & Zucker, 1981; Banks,

1979). The academic failure of these children, therefore, may stem from financial deficiencies in the home environment rather than inadequacies in the child.

This study revealed that the sociocultural variance which reflects the acculturation level of the family and the socioeconomic status of the home, and especially the Mexican American home, is significantly related to the achievement test performance of elementary age learning disabled children. The effect was more prominent on performance on the PIAT than on the WRAT-R.

Implications

Because of the voluntary process involved in this study, only 50 children and their parents participated despite the 300 parental permission letters which were mailed. Follow-up phone calls also were made to each home seeking assistance in the study.

A plan which would enhance parental involvement in the educational process would greatly illuminate the establishment of better and more efficient educational programming. Kroth (1975) stresses the cooperation of teachers and parents as partners rather than combatants in efforts to support children's educational growth. Efforts of teacher-training institutions should be directed toward instilling in teacher trainees a sense of responsibility to acknowledge and support efforts for better parental involvement, thus recognizing that the parents are the backbone of a school.

Some authors, however, have voiced concerns regarding the lack of minority group parent involvement in school (Dillard, Kinnison, & Peel, 1980; Marion 1979). Many of these parents often lack the necessary communication skills with the English language; therefore, they feel inadequate and uninformed. Many minority group parents view school through their own past experiences with the system. Problems of classroom conflict, teacher insensitivity, frustration, low academic achievement, and high dropout rates among minorities were issues then as they are today. As a result, some minority group parents avoid any contact with school which in turn brings about negative attitudes from teachers and administrators (Rodriguez, 1981). The devastating result affects the children who suffer when parents and teachers work at cross-paths, each pulling a different way.

Communicating with parents, particularly minority group parents, requires efforts in searching for ways in which to convey information. Efforts for involving minority group parents should be based on a series of attempts until

the right one works, that is, until the parent responds. It requires an openness on the part of the teacher to accept the parent as a useful and reliable resource in the classroom.

If one agrees that parents are a vital part of a total educational program and if one acknowledges the notion that traditional educational processes have failed to provide appropriate educational environments for minority groups, and if one nurtures the opinion that parent-teacher relationships enhance positive child growth, the challenge is quite clear.

This study revealed that the children of the research study group are deficient in reading, writing, and arithmetic skills. A possible remedy to this dilemma is teacher training in task analysis and effective teaching strategies (Kourilsky & Quarants, 1987). Siegel (1972) emphasized that the keystone to effective learning is to think along these lines "I know how to play checkers. Can I teach this child to play checkers, and what is the best way for him to learn?" (p. 351).

Some researchers have stated that discriminatory practices exist in the psychological assessment of minority group children, particularly in the case of Mexican American children. According to the *Task Force Findings Specifying Remedies Available for Eliminating Past Educational Practices Ruled Unlawful under Lau versus Nichols* (U.S. Office of Health, Education & Welfare, 1975), educational assessments should be made by persons who can speak and comprehend the language of the child. However, there is a shortage of certified educational diagnosticians in the Southwest who are fluent in both English and Spanish and who are qualified to make educational judgments affecting minority group children taking into account sociocultural variables (Rodriguez, Prieto, & Rueda, 1984).

Recruitment policies must be established by universities to help train minority group teachers and diagnosticians capable of implementing teaching expertise as well as educational cultural pluralism into the educational setting of minority group students (Henninger, 1989). School districts across the country are searching for and attempting to implement educational programs for their school-age populations. The results of this investigation provide school personnel with data that show the effect certain sociocultural factors have on academic achievement, thus offering curricula builders and teachers avenues for better understanding academically deficient children and, at the same time, challenging them to provide educational materials, instructions, and classroom environments relevant to each child (Prieto, Rueda, & Rodriguez, 1981).

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